

REMARKS AND ARGUMENTS

This *Amendments and Response to Second Office Action* is filed in response to the Second Office Action of September 21, 2007. Applicants submit that all the claims, as amended herein, are distinguishable from the prior arts of record.

The *Office Action* also states that the information disclosure statement filed in 17 August 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document. Applicants respectfully submit the required foreign patent applications with translated abstracts.

1. The *Office Action* states that claims 1-6 and 8-10 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,007,209 (“*Pelka*”). Applicants respectfully submit that the claims as amended herein overcome the rejection.

At the outset, Applicants respectfully disagree with the Examiner’s interpretation of “surface area ‘S’” in the current application. It is well settled that an inventor can be his own lexicographer in a patent application.

Nevertheless, in the interest of advancing the prosecution of the current application, Applicants have added the limitation of Claim 8 to Claim 1, and cancelled Claim 8. Furthermore, the characteristic of Claim 8, now added to Claim 1, “an angle in the range of about 60 degrees to about 90 degrees”, is further restricted to “an angle in the range of about 60 degrees to less than 90 degrees”. The amendment is at least supported by paragraph [0024] and Figure 2A of the current application. Applicants respectfully submit that *Pelka* does not disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue.

In order to properly anticipate Applicant's claimed invention under 35 U.S.C 102, each and every element of the claim at issue must be found, "either expressly or inherently described, in a single prior art reference". "The identical invention must be shown in as complete details as is contained in the claim."

Richardson v. Suzuki Motor Co., 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The invention described by amended Claim 1 is directed to an illumination device for display systems comprising (i) a plurality of light sources distributed over a light distribution surface area, (ii) at least one light diffusing plate optically coupled to the plurality of light sources and having a light incident area for receiving light from the light sources, wherein the light distribution surface area is at least greater than the light incidence area, and (iii) a device case enclosing the light sources. Specifically, amended Claim 1 recites, *inter alia*, that a portion of at least one of the plurality of sidewalls of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources such that more uniform illumination at the side edge can be achieved.

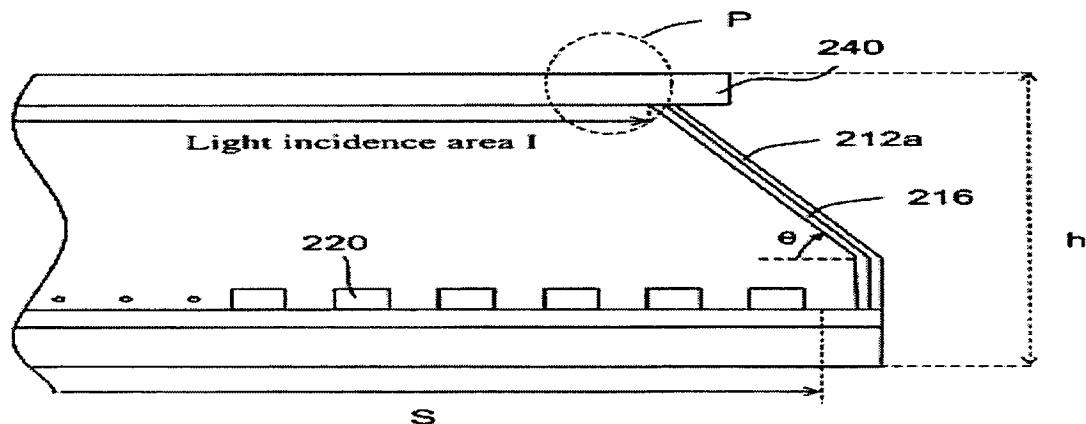


Figure 2D

Referring to Figure 2D of the specification of the present invention, the angle θ is in the range of about 60 degrees to less than 90 degrees. Therefore, the portion of at least one sidewall 212a of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees.

Furthermore, referring to paragraph [0024] in the present invention, it cited that “According to one embodiment, the angle θ can be in the range of about 60° to about 90° for the case height ‘h’ of about 4 cm. The angle θ and the height ‘k’ can be adjusted according to the desired amount of light intensity required at the display area ‘D’.” Further referring to paragraph [0032], it cited that “This exemplary configuration results in substantially uniform illumination of the display area ‘D’ of the light modulator 410 **including the peripheral regions**. In this embodiment, the brightness at the peripheral region of the display area ‘D’ drops to about less than 15% compared to other regions of the display area. In the prior art display systems, the brightness at the peripheral region drops to about 50%. Thus, the exemplary backlight configuration of the display system 300 substantially improves illumination at the periphery of the display area ‘D’.”

Pelka, however, does not disclose or suggest that a portion of at least one of the plurality of sidewalls of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources. Referring to FIG 2 of *Pelka*, as cited in Second Office Action, the side wall is not “inclined”. The upper part of the side wall, i.e. the baffles 72, of *Pelka* is at 90 degrees relative to the plane. Further, the lower part is curved in an unregulated form. **The baffles 72 will shield the light from the LED 12, and reduces the light uniformity at the side edge.** The range of about 60 degrees to less than 90 degrees is not presented in any figures of *Pelka*, but is presented in the present invention. Therefore, *Pelka* fails to disclose the feature of the side wall which inclines at a “range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources.”

For at least the foregoing reasons, Applicants respectfully submit that Claim 1 is patentably distinguishable from the reference of *Pelka*. At least by virtue of their respective dependency on Claim 1, Claim 2-6, 9 and 10 should also be patentable over *Pelka*. Claim 2-6, 9 and 10 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their independent claim 1. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

2. The *Office Action* further states that claims 12-17 and 19 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,616,316 (“*Takayanagi*”). Applicants respectfully submit that the claims as amended herein overcome the rejection.

In response thereto, Applicants have added limitation of Claim 19 to Claim 12, and cancelled Claim 19. Furthermore, the characteristic of Claim 19, now added to Claim 12, “an angle in the range of about 60 degrees to about 90 degrees”, is further restricted to “an angle in the range of about 60 degrees to less than 90 degrees”. No new matter has been added by the amendments made to the claim. Applicants respectfully submit that *Takayanagi* does not disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue.

In order to properly anticipate Applicant’s claimed invention under 35 U.S.C 102, each and every element of the claim at issue must be found, “either expressly or inherently described, in a single prior art reference”. “The identical invention must be shown in as complete details as is contained in the claim.”

Richardson v. Suzuki Motor Co., 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The invention described by amended claim 12 discloses an illumination device for a display system comprising (i) a light guide plate having at least one side edge surface and a light-emerging surface, wherein the side edge surface is substantially orthogonal to the light-emerging surface; (ii) a plurality of light sources optically coupled to the light guide plate at the side edge surface, wherein the plurality of light sources is placed along a length ‘M’ that is at least greater than a length of the side edge surface; and (iii) a device case enclosing the plurality of light sources, wherein the device case comprises a plurality of side walls having an inner surface configured to reflect light from the light sources. Specifically, amended Claim 12 recites, *inter alia*, that a portion of at least one of the plurality of sidewalls of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources such that more uniform illumination at the side edge can be achieved. Referring to paragraph [0024] in the present invention, it cited that “According to one embodiment, the angle θ can be in the range of about 60° to

about 90° for the case height ‘h’ of about 4 cm. The angle θ and the height ‘k’ can be adjusted according to the desired amount of light intensity required at the display area ‘D’.” Further referring to paragraph [0032], it cited that “This exemplary configuration results in substantially uniform illumination of the display area ‘D’ of the light modulator 410 **including the peripheral regions**. In this embodiment, the brightness at the peripheral region of the display area ‘D’ drops to about less than 15% compared to other regions of the display area. In the prior art display systems, the brightness at the peripheral region drops to about 50%. Thus, the exemplary backlight configuration of the display system 300 substantially improves illumination at the periphery of the display area ‘D’.”

Takayanagi, however, does not disclose or suggest that a portion of at least one of the plurality of sidewalls of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources. Referring to FIG 2-4 of *Takayanagi*, as cited in Second Office Action, the side wall is not “inclined” at an angle less than 90 but is at an angle of 90. Therefore, *Takayanagi* is silent to the feature of the side wall which inclines at a “range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources.”

For at least the foregoing reasons, Applicants respectfully submit that Claim 12 is patentably distinguishable from the reference of *Takayanagi*. At least by virtue of their respective dependency on Claim 12, Claim 13-17 should also be patentable over *Takayanagi*. Claim 13-17 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their independent claim 12. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

3. The *Office Action* suggests that claim 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,616,316 (“*Takayanagi*”), as applied to claim 1 and in view of U.S. Patent No. 6,007,209 (“*Pelka*”). Applicants respectfully submit that the claims as amended herein overcome the rejection.

According to the Claim 12 and its dependent Claim 20, as mentioned above, Applicants submitted that neither *Takayanagi* nor *Pelka* describes or suggests that a portion of at least one of the plurality of sidewalls of the device case is inclined at an angle in the range of about 60 degrees to less than 90 degrees relative to the plane of the plurality of light sources. Furthermore, Applicants respectfully submit that claim 12 is patentably distinguishable from the reference of *Takayanagi*. At least by virtue of its respective dependency on Claim 12, Claim 20 should also be patentable.

4. The *Office Action* suggests that claim 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,616,316 (“*Takayanagi*”), as applied to claim 1.

In accordance with the arguments set forth in #4 above, applicants respectfully submit that claim 12 is patentably distinguishable from the reference of *Takayanagi*. At least by virtue of its respective dependency on claim 12, claim 21 should also be patentable.

5. *New Claim 23 and 24 are add to more clearly describe the claimed invention. It is believed that no new matter is added by way of amendments made to specification or otherwise to the application.*

Applicants submitted that new Claims 23 and 24 are added by combining Claim 1 and 12 with following limitation, “*wherein the inner surface of the sidewalls and can include a plurality of edges that are configured to scatter light within the case to further enhance the illumination.*” The limitation of Claim 23 and 24 is fully supported by paragraph [0025] and FIG 2E of the present invention. As such, Applicants submit that the new claims do not add any new matter or necessitate any new search by themselves.

CONCLUSION

Applicants believe that given the above amendments and remarks, all the pending claims are now in condition for allowance and such is respectfully requested. No new claim fees are believed to be due for this response. The Examiner is requested to charge any fees that may due with this response to deposit account 50-3420 under Order No. 87159200-242006 (Dai). If further discussion of this amendment is required, the Examiner is urged to contact the undersigned at the telephone numbers indicated below.

Dated: December 21, 2007

Respectfully submitted,

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